

crete traits and single gene traits, considering our abysmal ignorance about the mode of inheritance of skeletal variants. Indeed, one might even suggest that until the happy time when the nebulous realm of skeletal genetics is deciphered, using the term "phenotypic distance," as Peebles has done in his article, rather than "biological distance" might reduce linguistically generated pitfalls in interpretation.

The unifying theme of this collection is the necessity for integrated interdisciplinary cooperation between archaeologists and biological anthropologists during all phases of research involving mortuary sites. But worthy as that goal may be, the constant reiteration of the point borders on tedium. Nevertheless, such a minor irritant should not detract from the real contribution this volume makes to the anthropological literature.

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**THE EFFECT OF THE MAN-MADE ENVIRONMENT ON HEALTH AND BEHAVIOR.** Edited by Lawrence E. Hinkle, Jr., and William C. Loring. U. S. Department of Health, Education, and Welfare, Center for Disease Control, Publ. No. 77-8318, Atlanta. 1977. xlvii + 315 pp., tables, bibliographies. \$3.25 (paper).

For several reasons, physical anthropologists have not been as active in "applied" endeavors as their sociocultural colleagues. This relative lack of activity is not, however, because we have little or nothing to contribute; indeed, quite the opposite is true. Our biosocial orientation and our concern with culture and behavior as influences on the human biological condition should make us a significant part of the campaign to arrest and diminish contemporary human problems, especially those of a biomedical nature. This collection of original writings overviews, with some detail, just one area of the modern milieu in which our contributions could be more prolific.

To paraphrase the first sentence of the introduction, this volume represents an attempt by the Public Health Service to identify physical and social factors in the urban residential environment that contribute to health, safety, disease and injury. The PHS em-

panelled the ten major contributors to this volume, charging them with identifying those factors noted above. Significantly, although the man-made environment, at least in this work, is defined as architectural-physical, most of the contributors are social scientists, including two anthropologists. Other contributors include two physicians, an engineer, an architect, and two public health specialists.

The contributions range from a historical perspective on the subject to very specific foci (residential environment and health of the elderly). Most of the articles focus on disease and epidemiology rather than safety and injury. While many of the contributions definitely intertwine, each has a distinct, unique orientation. In fact, the entire effort, perhaps because it represents the collective endeavor of a panel led by conscientious editors, is well organized, developed and integrated. Each of the 11 major contributions concludes with an extensive bibliography; an author index to chapter bibliographies is also included.

Four chapters of this book deserve special comment. Two of them provide a good basic summary of the basic subject matter under consideration. Donald Kennedy's "Community Health and the Urban Environment" is a good general overview of urban communities, their problems and the latter's implications for health. Stanislav Kasl provides an excellent, detailed critical review of "The Effects of the Residential Environment on Health and Behavior." In Chapter VII, Hinkle, who is director of the Division of Human Ecology at the Cornell University Medical College, outlines some basic and simple tools designed to measure the effects of the environment on human health and behavior. I found the late Albert Damon's contribution the most interesting of all, perhaps because of its anthropological orientation. He reviews some data from the Solomon Islands and other non-American societies, and concludes with a summary of his work in a Boston housing project.

After reading this book, one will have a detailed understanding of the effects of the man-made environment on health and behavior. However, one will not be astonished by any particularly novel idea or information. Rather, one will reach four conclusions. The effects are significant. Probably more important than the physical environment is the social environment and the physical environment's effects on the social. Our concerns

should be directed toward the quality of the environment as it affects people, not as people affect the environment. Finally, research in this general area is fraught with many complex methodological problems. Virtually all human biologists and physical anthropologists interested in modern populations should find much of this book interesting, if not challenging.

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THE FOOD CRISIS IN PREHISTORY: OVER-POPULATION AND THE ORIGINS OF AGRICULTURE. By Mark Nathan Cohen. Yale University Press, New Haven, Connecticut. 1977. x + 341 pp., bibliography, index. \$15.00 (cloth).

This book is concerned with the interaction of human cultural and biological systems. It deserves to be read by all people interested in population growth, its causes and results. What is presented is an attempt to provide a general theory linking cultural development and, in particular, the origins of agriculture to population pressure.

Cohen has asked the primary question of why man, so clearly adapted over several million years to a hunting and gathering economic mode, altered this fundamental pattern. He has also asked why such an alteration occurred over the major proportion of the earth in so relatively short a period of time. In so doing he raises a point that has only been fully appreciated within the past decade, that the shift to agriculture as the primary economic mode does not produce overwhelming benefits to a society except in terms of food output per area of land exploited. On the other hand the quality of the diet appears to decrease as does its desirability and productive work-loads are increased. This apparent paradox leads to the conclusion that the shift must be the product of some pressure on the society, not the oft-thought discovery of boundless riches.

It should be stated clearly that I am in considerable sympathy with the general thrust of this volume. My reading of the dynamics of modern hunter-gatherer groups suggests that they are generally resistant to change to a more complex economic existence. Many explanations of the change to an agricultural pattern, especially in the Middle East, have

failed to comprehend this. In addition they have a tendency to rest upon untestable hypotheses and suppositions. More recent suggestions based upon knowledge of crop yields, sedentism and population growth have been more mechanistic in their explanation of culture change. I have found this refreshing. This may also be a reason for some to dislike the volume and its thesis. Cohen has explicitly recognized in his introduction that some will not like such an approach. I have found resistance during my own teaching to the idea that cultural development is primarily a response to outside pressure rather than some internal drive for advancement.

Just over two-thirds of this book is involved with the presentation of archeological evidence for the model. One chapter is devoted to the Old World and two to the New World. To my mind the evidence in the former case is considerably clearer. It also varies, of course, from one sub-continental area to another. Cohen argues that the evidence indicates that human populations have always been in a continual growth state, that complex cultural mechanisms exist to balance local population pressure and that towards the end of the Pleistocene such growth and pressure finally reached levels that could not be relieved by previously exploited methods. This resulted in widespread adaptation of previously understood means of increasing food yields, namely in the domestication of plants.

The volume is heavily dependent upon its data base. Are the arguments presented from such a base agreeable to all? More important, how reliable is the data base? I, as most will be, am more familiar with certain areas than with others. I have found that for Europe, as an example, the data base may be subject to quite contradictory interpretations. Cohen argues that population growth and pressure is visible throughout the Middle and Upper Palaeolithic and into the Mesolithic. The manner in which it is viewed, however, suggests that very disparate dynamics can be postulated. As examples, the suggestion that Upper Palaeolithic sites were permanently settled depends upon assumptions of cohabitation of all structures on particular sites and upon the interpretations of seasonality from reindeer bones, both of which have been seriously questioned in the literature. A resultant assumption that these populations were of high density is likewise dependent upon the same bases, together with the feeling that the